

### **REMARKS**

Reconsideration and allowance in view of the foregoing amendment and the following remarks are respectfully requested. Claims 1, 2, 5, 6, 7, 10, 11, and 16 are amended without prejudice or disclaimer.

#### **Objections to the Claims**

The Office Action objects to claims 1-19 because of informalities. Applicants respond by amending claims 2, 5, 6, 11, and 16. Claim 2 has been amended to clarify obvious utterances. Claim 5 has been amended to depend from claim 3, because claim 4 does not exist. Claim 6 has been amended for formatting consistency with claim 8. Claims 11 and 16 have been amended to add the word "and" in appropriate places for clarity. Therefore Applicants request that the objection for informalities be withdrawn.

#### **Rejection of Claims 1-19 Under 35 U.S.C. §112**

The Office Action rejects claims 1-19 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Applicants respond by amending claims 1, 7, 11, and 16. Claim 1 has been amended to clearly define what a call-type is. Claim 7 has been amended to correct the grammatical or spelling error of then/than. Claims 11 and 16 have been amended to change "samples utterance" to "sample utterances" to correct typographical errors. For the foregoing reasons, Applicants request that the objection under 35 U.S.C. § 112 be withdrawn.

**Rejection of Claims 1-19 Under 35 U.S.C. §101**

The Office Action rejects claims 1-19 under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. Applicants respectfully traverse this rejection and submit that claims 1-19 contain patentable subject matter. The Interim Guidelines cited by the Examiner state that in practical terms, claims define nonstatutory processes if they (1) consist solely of mathematical operations *without some claimed practical application* (i.e., executing a “mathematical algorithm”), or (2) simply manipulate abstract ideas, e.g., a bid (Schrader, 22 F.3d at 293-94, 30 USPQ2d at 1458-59) or a bubble hierarchy (Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759), *without some claimed practical application*. See Interim Guidelines, Annex 5, page 58; emphasis added. The preamble of claim 1 recites a limitation that the method generates a model “for use in a spoken dialog service.” This clause introduces a claimed practical application of the invention. The method of claims 1-19 does not manipulate only numbers, abstract concepts, or ideas in a vacuum; the method has a practical, real-world application of generating language models for spoken dialog services.

Additionally, the case cited by the Examiner, Gottschalk v. Benson, 409 U.S. at 71, 175 USPQ at 676, is fundamentally different than this case. In Benson, the formula claim was rejected because it was directed to an algorithm alone with a practical application. Benson’s formula for converting binary-coded decimals to pure binary was merely a mathematical expression, in contrast to Applicants’ claims 1-19, which are presented in the context of a spoken dialog system. Applicants submit that claims 1-19 contain patentable subject matter that conforms to the requirements of 35 U.S.C. § 101 and are in condition for allowance.

**Rejection of Claims 1-19 Under 35 U.S.C. §102**

The Office Action rejects claims 1-19 under 35 U.S.C. §102 as being anticipated by Epstein (U.S. Patent No. 6,735,560) ("Epstein"). Applicants traverse this rejection and respectfully submit that claims 1-19 are not anticipated by Epstein under 35 U.S.C. § 102(b). Epstein does not teach all the limitations of claim 1. Claim 1 requires testing a first NLU model using at least one hand crafted rule and sample utterances and testing the performance of a second NLU model using a first batch of labeled data. Epstein does not teach any kind of testing, evaluation, assessment, or analysis of NLU models whatsoever, much less performance testing or performance evaluation as delimited in claim 1, as can be shown with a simple search of the text of Epstein. In fact, Epstein does not teach testing or evaluation of anything. This limitation of claim 1 is not taught by Epstein.

Epstein also does not teach the claim limitation of creating at least one handcrafted rule for each call-type defined in a labeling guide using sample utterances. Epstein teaches using a classifier which may be grammatically based or statistically based to identify text strings. Col. 3, lines 42-45. Epstein focuses on identifying text string and substrings rather than creating rules for call-types. Using a classifier to identify text strings is not the same as creating handcrafted rules for each call-type defined in a labeling guide using sample utterances. Therefore Epstein does not teach all the limitations of claim 1.

Epstein does not teach all the claim limitations of claim 11 and 16. Similar to claim 1, claims 11 and 16 both require testing performance of a first NLU model and evaluating performance of a series of later NLU models. As discussed above, Epstein does not teach any testing or evaluating performance of an NLU model or anything else. Therefore Epstein does not teach all the claim limitations of claims 11 and 16.

Regarding claims 2-3, 7-10, 12-15, and 17-19, Epstein's further manipulation of the NLU model as cited by the examiner is moot because each of these claims depends from one of claims 1, 11, or 16, which have been shown above to contain additional limitations not taught by Epstein.

For the foregoing reasons, Applicants respectfully request that the 35 U.S.C. § 102(b) rejection be withdrawn.

**CONCLUSION**

Having addressed all rejections and objections, Applicants respectfully submit that the subject application is in condition for allowance and a Notice to that effect is earnestly solicited. If necessary, the Commissioner for Patents is authorized to charge or credit the **Novak, Druce & Quigg, LLP, Account No. 14-1437** for any deficiency or overpayment.

Respectfully submitted,

Date: August 1, 2007

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